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MERCHANT & GOULD PC			EXAMINER	
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		Preeti Lal 11 /29/2003 PC	ART UNIT	PAPER NUMBER
			1653	

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	09/965,529	LAL ET AL.
Office Action Summary	Examiner	Art Unit
	Karen Cochrane Carlson, Ph.D	1
The MAILING DATE of this communication Period for Reply	appears on the cover sheet with th	e correspondence address
A SHORTENED STATUTORY PERIOD FOR RETHE MAILING DATE OF THIS COMMUNICATION - Extensions of time may be available under the provisions of 37 CF after SIX (6) MONTHS from the mailing date of this communication - If the period for reply specified above is less than thirty (30) days, and If NO period for reply is specified above, the maximum statutory period for reply within the set or extended period for reply will, by soon - Any reply received by the Office later than three months after the mearmed patent term adjustment. See 37 CFR 1.704(b).	DN. FR 1.136(a). In no event, however, may a reply be n. a reply within the statutory minimum of thirty (30) eriod will apply and will expire SIX (6) MONTHS fi statute, cause the application to become ABANDO	e timely filed days will be considered timely. rom the mailing date of this communication. DNED (35 U.S.C. § 133).
1) Responsive to communication(s) filed on	<u></u> •	
2a) This action is FINAL . 2b)	This action is non-final.	
3) Since this application is in condition for all closed in accordance with the practice un Disposition of Claims		
4)⊠ Claim(s) <u>1-129</u> is/are pending in the applic	cation.	
4a) Of the above claim(s) is/are with	ndrawn from consideration.	
5) Claim(s) is/are allowed.		
6)☐ Claim(s) is/are rejected.		
7) Claim(s) is/are objected to.		
8)⊠ Claim(s) <u>1-129</u> are subject to restriction an	nd/or election requirement.	
Application Papers		
9) The specification is objected to by the Exan		
10) The drawing(s) filed on is/are: a) a		
Applicant may not request that any objection t		
11) The proposed drawing correction filed on		proved by the Examiner.
If approved, corrected drawings are required in 12). The oath or declaration is objected to by the		
	e Examiner.	
Priority under 35 U.S.C. §§ 119 and 120	roign priority under 25 U.S.C. \$ 110	2(a) (d) an (f)
13) Acknowledgment is made of a claim for fora) All b) Some * c) None of:	reign priority under 35 0.5.C. § 118	9(a)-(a) or (i).
,		
1. Certified copies of the priority docum		ation No.
2. Certified copies of the priority docum	• •	
 3. ☐ Copies of the certified copies of the papelication from the Internationa * See the attached detailed Office action for a 	il Bureau (PCT Rule 17.2(a)).	_
14)☐ Acknowledgment is made of a claim for dom	nestic priority under 35 U.S.C. § 11	9(e) (to a provisional application).
a) ☐ The translation of the foreign language 15)☐ Acknowledgment is made of a claim for dom		
Attachment(s)		
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No.	5) Notice of Inform	nary (PTO-413) Paper No(s) nal Patent Application (PTO-152)

At page 5 of the specification, the polypeptides of the invention are stated to be membrane associated proteins referred to collectively as "MEMAP", and Individually as MEMAP-1 through MEMAP-37, corresponding to SEQ ID NO: 1- NO: 37. Claim 1, for example, refers to SEQ ID NO: 26, and dependent Claim 2 refers to each of SEQ ID NO: 1-37. Perusal of SEQ ID NO: 26 shows that SEQ ID NO: 26 is unique and is not encompassed by SEQ ID NO: 1-25 or NO: 27-37. Therefore, it is not clear how the reference in Claim 2 to SEQ ID NO: 1, for example, further limits SEQ ID NO: 26 in Claim 1. Therefore, SEQ ID NO: 1-37, encoded by nucleic acids 38-74, are considered to be patentably distinct one from the other and the claims have been restricted according to subject matter and not to dependency.

Restriction to one of the following inventions is required under 35 U.S.C. 121: Of Class 530, subclass 350:

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1, claim(s) 2, 18, and 56, drawn to polypeptide having SEQ ID NO: 1.
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^{2,} claim(s) 2, 18, and 57, drawn to polypeptide having SEQ ID NO: 2.

^{3,} claim(s) 2, 18, and 58, drawn to polypeptide having SEQ ID NO: 3.

^{4,} claim(s) 2, 18, and 59, drawn to polypeptide having SEQ ID NO: 4.

^{5,} claim(s) 2, 18, and 60, drawn to polypeptide having SEQ ID NO: 5.

^{6,} claim(s) 2, 18, and 61, drawn to polypeptide having SEQ ID NO: 6.

^{7,} claim(s) 2, 18, and 62, drawn to polypeptide having SEQ ID NO: 7.

^{8,} claim(s) 2, 18, and 63, drawn to polypeptide having SEQ ID NO: 8.

^{9,} claim(s) 2, 18, and 64, drawn to polypeptide having SEQ ID NO: 9.

^{10,} claim(s) 2, 18, and 65, drawn to polypeptide having SEQ ID NO: 10.

^{11,} claim(s) 2, 18, and 66, drawn to polypeptide having SEQ ID NO: 11.

^{12,} claim(s) 2, 18, and 67, drawn to polypeptide having SEQ ID NO: 12.

^{13,} claim(s) 2, 18, and 68, drawn to polypeptide having SEQ ID NO: 13.

^{14,} claim(s) 2, 18, and 69, drawn to polypeptide having SEQ ID NO: 14.

^{15,} claim(s) 2, 18, and 70, drawn to polypeptide having SEQ ID NO: 15.

^{16,} claim(s) 2, 18, and 71, drawn to polypeptide having SEQ ID NO: 16.

^{17,} claim(s) 2, 18, and 72, drawn to polypeptide having SEQ ID NO: 17.

^{18,} claim(s) 2, 18, and 73, drawn to polypeptide having SEQ ID NO: 18.

^{19,} claim(s) 2, 18, and 74, drawn to polypeptide having SEQ ID NO: 19.

^{20,} claim(s) 2, 18, and 75, drawn to polypeptide having SEQ ID NO: 20.

^{21,} claim(s) 2, 18, and 76, drawn to polypeptide having SEQ ID NO: 21.

^{22,} claim(s) 2, 18, and 77, drawn to polypeptide having SEQ ID NO: 22. 23, claim(s) 2, 18, and 78, drawn to polypeptide having SEQ ID NO: 23.

^{24,} claim(s) 2, 18, and 79, drawn to polypeptide having SEQ ID NO: 24.

^{25,} claim(s) 2, 18, and 80, drawn to polypeptide having SEQ ID NO: 25.

^{26,} claim(s) 1, 2, 17, 18, and 81, drawn to polypeptide having SEQ ID NO: 26.

^{27,} claim(s) 2, 18, and 82, drawn to polypeptide having SEQ ID NO: 27.

^{28,} claim(s) 2, 18, and 83, drawn to polypeptide having SEQ ID NO: 28.

- 29, claim(s) 2, 18, and 84, drawn to polypeptide having SEQ ID NO: 29.
- 30, claim(s) 2, 18, and 85, drawn to polypeptide having SEQ ID NO: 30.
- 31, claim(s) 2, 18, and 86, drawn to polypeptide having SEQ ID NO: 31.
- 32, claim(s) 2, 18, and 87, drawn to polypeptide having SEQ ID NO: 32.
- 33, claim(s) 2, 18, and 88, drawn to polypeptide having SEQ ID NO: 33.
- 34, claim(s) 2, 18, and 89, drawn to polypeptide having SEQ ID NO: 34.
- 35, claim(s) 2, 18, and 90, drawn to polypeptide having SEQ ID NO: 35.
- 36, claim(s) 2, 18, and 91, drawn to polypeptide having SEQ ID NO: 36.
- 37, claim(s) 2, 18, and 92, drawn to polypeptide having SEQ ID NO: 37.

Of Class 536, subclass 23.1:

- 38, claim(s) 4, 5, 10, and 93, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 1.
- 39, claim(s) 4, 5, 10, and 94, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 2.
- 40, claim(s) 4, 5, 10, and 95, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 3.
- 41, claim(s) 4, 5, 10, and 96, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 4.
- 42, claim(s) 4, 5, 10, and 97, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 5
- 43, claim(s) 4, 5, 10, and 98, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 6.
- 44, claim(s) 4, 5, 10, and 99, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 7.
- 45, claim(s) 4, 5, 10, and 100, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 8.
- 46, claim(s) 4, 5, 10, and 101, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 9.
- 47, claim(s) 4, 5, 10, and 102, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 10.
- 48, claim(s) 4, 5, 10, and 103, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 11.
- 49, claim(s) 4, 5, 10, and 104, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 12.
- 50, claim(s) 4, 5, 10, and 105, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 13.
- 51, claim(s) 4, 5, 10, and 106, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 14.
- 52, claim(s) 4, 5, 10, and 107, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 15.
- 53, claim(s) 4, 5, 10, and 108, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 16.
- 54, claim(s) 4, 5, 10, and 109, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 17.
- 55, claim(s) 4, 5, 10, and 110, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 18.
- 56, claim(s) 4, 5, 10, and 111, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 19.
- 57, claim(s) 4, 5, 10, and 112, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 20.

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- 58, claim(s) 4, 5, 10, and 113, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 21
- 59, claim(s) 4, 5, 10, and 114, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 22.
- 60, claim(s) 4, 5, 10, and 115, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 23.
- 61, claim(s) 4, 5, 10, and 116, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 24.
- 62, claim(s) 4, 5, 10, and 117, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 25.
- 63, claim(s) 3-7, 9, 10, 12, 13, 46-55, and 118, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 26.
- 64, claim(s) 4, 5, 10, and 119, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 27.
- 65, claim(s) 4, 5, 10, and 120, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 28.
- 66, claim(s) 4, 5, 10, and 121, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 29.
- 67, claim(s) 4, 5, 10, and 122, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 30.
- 68, claim(s) 4, 5, 10, and 123, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 31.
- 69, claim(s) 4, 5, 10, and 124, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 32.
- 70, claim(s) 4, 5, 10, and 125, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 33.
- 71, claim(s) 4, 5, 10, and 126, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 34.
- 72, claim(s) 4, 5, 10, and 127, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 35.
- 73, claim(s) 4, 5, 10, and 128, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 36.
- 74, claim(s) 4, 5, 10, and 129, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 37.
- 75, claim(s) 8, drawn to transgenic organism comprising polynucleotide encoding polypeptide having SEQ ID NO: 26, class 800, subclass 2.
- 76, claim(s) 11 and 30-45, drawn to antibody against polypeptide having SEQ ID NO: 26, class 530, subclass 387.1.
- 77, claim(s) 14-16, drawn to method for detecting polynucleotide using polynucleotide encoding polypeptide having SEQ ID NO: 26, class 435, subclass 6.
- 78, claim(s) 19, drawn to method of treatment by administering polypeptide having SEQ ID NO: 26, class 514, subclass 2.
- 79, claim(s) 20, drawn to a method of screening agonists of polypeptide having SEQ ID NO: 26, class 435, subclass 7.1.

- 80, claim(s) 21, drawn to an agonist of polypeptide having SEQ ID NO: 26, class 530, subclass 350.
- 81, claim(s) 22, drawn to a method of treatment by administering the agonist of polypeptide having SEQ ID NO: 26, class 514, subclass 2.
- 82, claim(s) 23, drawn to a method of screening antagonists of polypeptide having SEQ ID NO: 26, class 435, subclass 7.1..
- 83, claim(s) 24, drawn to an antagonist of polypeptide having SEQ ID NO: 26, class 530, subclass 350.
- 84, claim(s) 25, drawn to a method of treatment by administering the antagonist of polypeptide having SEQ ID NO: 26, class 514, subclass 2..
- 85, claim(s) 26, drawn to a method for screening compounds that bind to polypeptide having SEQ ID NO: 26, class 435, subclass 7.1.
- 86, claim(s) 27, drawn to a method for screening compounds that modulate the activity of polypeptide having SEQ ID NO: 26, class 435, subclass 7.1.

Of Class 435, subclass 6:

- 87, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 1.
- 88, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 2.
- 89, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 3.
- 90, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 4.
- 91, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 5.
- 92, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 6.
- 93, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 7.
- 94, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 8.
- 95, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 9.
- 96, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 10.
- 97, claim(s) 28, drawn to a method of screening for compounds that after the expression of polynucleotide encoding polypeptide having SEQ ID NO: 11.
- 98, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 12.
- 99, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 13.
- 100, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 14.

- 101, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 15.
- 102, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 16.
- 103, claim(s) 28, drawn to a method of screening for compounds that after the expression of polynucleotide encoding polypeptide having SEQ ID NO: 17.
- 104, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 18.
- 105, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 19.
- 106, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 20.
- 107, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 21.
- 108, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 22.
- 109, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 23.
- 110, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 24.
- 111, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 25.
- 112, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 26.
- 113, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 27.
- 114, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 28.
- 115, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 29.
- 116, claim(s) 28, drawn to a method of screening for compounds that after the expression of polynucleotide encoding polypeptide having SEQ ID NO: 30.
- 117, claim(s) 28, drawn to a method of screening for compounds that after the expression of polynucleotide encoding polypeptide having SEQ ID NO: 31.
- 118, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 32.
- 119, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 33.
- 120, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 34.
- 121, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 35.
- 122, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 36.
- 123, claim(s) 28, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 37.
- 124, claim(s) 29, drawn to a method for assessing toxicity using a polynucleotide encoding polypeptide having SEQ ID NO: 26.

The inventions are distinct, each from the other because of the following reasons:

The nucleic acids of Inventions 38-74 are related to the protein of Inventions 1-37, respectively, by virtue of encoding same. The DNA molecule has utility for the recombinant production of the protein in a host cell, as recited in the Claims of Invention I. Although the DNA molecule and protein are related since the DNA encodes the specifically claimed protein, they are distinct inventions because the protein product can be made by another and materially different process, such as by synthetic peptide synthesis or purification from the natural source. Further, the DNA may be used for processes other than the production of the protein, such as nucleic acid hybridization assay.

The protein of Invention 26 are related to the antibodies of Invention 76 by virtue of being the cognate antigen, necessary for the production of antibodies. Although the protein and antibody are related due to the necessary stearic complementarity of the two, they are distinct Inventions because the protein can be used in another and materially different process from the use for the production of the antibody, such as in a pharmaceutical composition in its own right, or to assay or purify the natural ligand of the protein (if the protein is itself a receptor), or in assays for the identification of agonists or antagonists of the receptor protein.

The nucleic acid of Invention 63 and the antibody of Invention 76 are related by virtue of the protein that is encoded by the nucleic acid and necessary for the production of the antibody. However, the nucleic acid itself is not necessary for antibody production and both are wholly different compounds having different compositions and functions. Therefore, these Inventions are distinct.

The protein of Invention 26 and the agonist of Invention 80 are related in that both products have similar activities. However, the structure of the products are different and therefore these Inventions are patentably distinct.

The protein of Invention 26 and the antagonist of Invention 83 have differing structure and opposing function. Therefore, these products are patentably distinct.

The polypeptide of Inventions 1-37, the nucleic acid of Inventions 38-74, the transgenic organism of Invention 75, the antibody of Invention 76, the agonist of Invention 80, and the antagonist of Invention 83 differ in structure and function one from the other. Therefore, these Inventions are patentably distinct.

Inventions 63 and the methods of Inventions 77, 112, and 124 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP

806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in any one of the methods of Inventions 77, 112, or 124.

Inventions 26 and the methods of Inventions 78, 79, 82, and 85 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP

806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in any one of the methods of Inventions 78, 79, 82, or 85.

Inventions 38-74 and the methods of Inventions 87-123, respectively, are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP \square 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in a method for recombinant production of protein.

The methods of Inventions 77 -79, 81, 82, and 84-124 require different products and steps and have different endpoints. Therefore, Inventions 77 -79, 81, 82, and 84-124 are patentably distinct.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Cochrane Carlson, Ph.D. whose telephone number is 703-308-0034. The examiner can normally be reached on 7:00 AM - 4:00 PM, off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Christopher Low can be reached on 703-308-2329. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

KAREN COCHRANE CARLSON, PH.D.
PRIMARY EXAMINER